Title: Place Value through 999,999

Brief Overview:

In this unit, students will be introduced to expanded form notation and representation of whole numbers through 999,999. Students will use a variety of manipulatives and technology during instruction. At the completion of the unit, students will demonstrate a mastery of place values and using standard and expanded form notation.

NCTM Content Standard:

Understand numbers, ways of representing numbers, relationships among numbers, and number systems

In grades 3–5 all students should–

- understand the place-value structure of the base-ten number system and be able to represent and compare whole numbers and decimals

Maryland State Curriculum Standard (Grade 4):

- Standard 6.0 Topic A1 Objective 1
  Read, write and represent whole numbers using symbols, words and models
- Standard 6.0 Topic A1 Objective 2
  Express whole numbers in expanded form
- Standard 6.0 Topic A1 Objective 3
  Identify the place value of a digit in a number

Grade/Level:

Grades 4-5

Duration/Length:

3 class sessions of 60 minutes

Student Outcomes:

Students will:

- Locate and identify the digit in each place of a whole number through 999,999.
- Identify the value of a digit through 999,999 using concrete and pictorial representations.

- Create concrete and pictorial representations of whole numbers through 999,999.
- Create and use standard and expanded form to represent whole numbers through 999,999.
- Apply knowledge of the base 10 number system to represent whole numbers.

Materials and Resources:

- *Preassessment sheet*
- *I have….who has…?*game cards and directions (included in resources). These can also be found at www.mathwire.com/whohas/whohaspv.pdf. The directions can be found at http://www2.allentownsd.org/EETT/Games.htm
- Base 10 blocks
- *Place value pictorial chart* (included in resources)
- Dry erase boards and markers
- *Modeling Expanded Form* with answer key
- www.funbrain.com (place value puzzler)
- *Texas-Hold It!!! Highest Wins* game directions with playing cards
- www.crickweb.co.uk/assets/resources/index.php?&file=Tollkitindex2a (this can also be assessed through www.wartgames.com/themes/math/placevalues.html and click on place value calculator)
- *Building Expanded Form* with answer key
- *Stretching Out Expanded Form* with answer key
- Number tiles
- *Expanding Your Horizons with Math* with answer key
- *Don't Forget the Period* with answer key
- How Much is a Million by David Schwartz
- *Mystery Number* with answer key
- Place value power point slide show *Exploring Place Value*- this is linked to unit author Lisa Caro's blog at http://yses.sites.fcps.org/blog/67. Slides are provided in the resource section of this unit. Permission is granted for classroom use only.
- *Expanded Form Hunt* with answer key
- 5-6 digit number cards
- *Mystery Math*
- *Place Value Bingo* directions and materials
- *Expanded Form Assessment* with answer key

*Note: The websites cited above provide free teacher and student resources/activities on the internet. These sites do not require membership or additional computer software in order to utilize.

Development/Procedures:

Day 1

Pre-assessment

- Distribute a copy of the Pre-Assessment to each student.
- How many different ways can you represent 57,643? Have students think-pair-share with a partner and record their responses on their papers.

Engagement

- Distribute *I have…who has?* game cards for numbers through 999. Review directions for game.
- Complete several rounds of the game, exchanging cards after each round.

Exploration

- Distribute Base 10 blocks to student pairs.
- Pose question to students: "How can you represent 5,946 using base 10 blocks? Observe student responses. Discuss with student groups how they are using the manipulatives to solve the problem.
- Have students share their responses and how they created their responses (you can use a projecting device to allow student representations to be seen by the whole class).

Explanation

- Display the number 45,678. Review with students how to read this number and how there are two periods in this number, the ones period and the thousands period. Each period has ones, tens, and hundreds. Model math vocabulary when naming each place such as the tens column in the thousands period is called the ten-thousands place.
- Pose question to students: "What digit is in the hundreds place?" "What digit is in the one-thousands place?" etc, until each digit is identified. Do this with several different example numbers.
- Review each of the different Base 10 blocks. What is their name, what is their value?
- Model how to construct numbers using the Base 10 materials. Using 45,678, start in the ones place (in the ones period) " How many units should I use?" (correct response is 8 units). Go through this process for each digit. Reinforce that even though units are used both in the ones place and the one-thousands place, they have a different meaning because they are in different periods.
- Repeat this process with multiple numbers.
- Display 18,249. With their partner, have students represent this number with their Base 10 blocks. Ensure student understanding through observation and individual discussion.
- Provide students with other numbers to represent with the Base 10 materials. Students should clean up materials when finished.
- Introduce how to pictorially represent numbers. Using Base 10 materials, display 32,123. Ask students: "What number am I representing?" "Can you think of a different way to show this number without using the blocks?" Discuss student responses and guide discussion towards drawing pictures. Using the place value

pictorial chart (in resources), draw the representation of 32,123. Identify the value of each digit and label the chart accordingly.

- Illustrate for students that if you add the value of each digit, it equals the whole number. This is called expanded form.
- Display 53,157. "What digit is in the _____ place?" As students respond, draw this on the place value pictorial chart. Now ask, "What is the value of the _____ place?" and write each value on the chart. Write the expanded form equation.
- Practice more problems. Distribute student copies of the *Place Value Pictorial Chart* for students to complete the process. Students can record the expanded form equations on a dry erase board.

Extension

- Students will independently complete Day 1 Extension Practice *Modeling Expanded Form*. Monitor student responses through observation and individual discussion. An answer key is provided.

Differentiation

- Reteach
    - www.funbrain.com (place value puzzler). The place value puzzler game displays 4-5 digit numbers and instructs students to click on certain digits to identify what digit is in each place.
    - *An alternative differentiation activity is *Texas-Hold It!!! Highest Wins* card game. The directions are located in the resources.

- Enrich
    - www.crickweb.co.uk/assets/resources/index.php?&file=Tollkitindex2a (this can also be assessed through www.wartgames.com/themes/math/placevalues.html and click on place value calculator) The place value calculator displays 4-5 digit target numbers and various values and instructs students to find and drag the value of each digit into the calculator in order to make the target number.

    - *An alternative differentiation activity is *Texas-Hold It!!! Highest Wins* card game. If using for enrichment, modify the game directions to include 4,5, and 6 digit numbers.

Evaluation

- Students will complete Day 1 exit ticket *Building Expanded Form*. An answer key is provided.

Day 2

Engagement

- Show video clip **http://player.discoveryeducation.com/index.cfm?guidAssetId=92F95DC7-50AD-456E-8932-27F9CC5E6AEA&blnFromSearch=1&productcode=US or http://player.discoveryeducation.com/index.cfm?guidAssetId=9B3216C3-9773-4194-B1C7-46BCACDD7CC2&blnFromSearch=1&productcode=US or http://www1.teachertube.com/viewVideo.php?video_id=232824&title=Whole_Numbers___Place_Value_and_Expanded_Form**
    - An alternative for this video is to play "Guess My Number". To play this game, think of a number but don't tell the students. Give them a clue to help them guess your number. Continue providing clues to narrow down the possible answers until the correct number is stated.

      Here is an example:
        - "My number is between 8,000 and 10,000."
        - Based on the response, give an additional clue, such as "My number is odd" or "My number has a value of 300".
        - Continue providing clues until the students identify the mystery number.

Exploration

- Review content of video clip (identify places, place values, concrete and pictorial representations, expanded form)
- Discuss: "How does the pictorial representation of a number help you determine the value of each digit and the expanded form for the number?"
- Today, we will determine expanded form with out using the pictorial representation.

*If you played "Guess My Number" for exploration, lead a discussion with students regarding the strategies they used while determining the number. Make a list for students to refer to in the future.

Explanation

- Display a 5 digit number using place value chart (from Day 1).
- Identify and label each place name and what digit is in each place.
- What is the value of the ten-thousands place? Write that below each place in the chart. Repeat for each place. Do not include the addition symbols.
- After labeling each value: "What do I need to do with all these values to show expanded form? (add them). Insert addition symbols.
- Column add each addend to demonstrate checking your work.
- Repeat this process, provide students with a copy of the place value chart to record the teacher examples. Move to 6 digit numbers.

Extension

- Students will complete Extension Day 2 practice sheet *Stretching Out Expanded Form*. An answer key is provided.

Differentiation

- Reteach
  - Use number tiles to create 5 and 6 digit numbers. Using base 10 materials, students will create a concrete representation of their number. Determine the value of each digit by counting the base 10 materials. Write the value on a dry erase board. Add each value together.

- Enrich
  - Provide students with *Expanding Your Horizons with Math* to solve with a partner. These are word problems involving expanded and standard form. An answer key is provided.

Evaluation

- Students will complete Day 2 exit ticket *Don't Forget the Period!*. An answer key is provided.

Day 3

Engagement

- Read aloud How Much is a Million by David Schwartz (ISBN #9780808579144)

Exploration

- Complete *Mystery Number* activity using number tiles with a partner. An answer key is provided.

Explanation

- Pose question: "What does it mean when there is a 0 in a number?" "How do you think this will affect the expanded form?" Allow students time to think-pair-share with a partner or small group, then facilitate a whole class discussion.
- After discussion, reinforce that zeros still need to be represented in order to keep the total value of the number the same. Demonstrate using base 10 materials and a pictorial representation. "What would happen if I just left out the zero digit?" (you would not have the same number). For example:

  56,076 is 50,000+6,000+0+70+6 not 50,000+6,000+700+60, you can't just leave out the zero digit
- "Do you think you really need the zero in your equation?" (no) "Why or why not?" Explain and model for students that as long as you correctly represent the value of each digit you do not need to include those places with a value of zero in the expanded form.
- Explore Power Point slide show, *Exploring Place Value*. Discuss content with students. Follow up with small group discussion of observations and questions.

Extension

- Students will complete the Day 3 extension sheet, *Expanded Form Hunt*. An answer key is provided.

Differentiation

- Reteach
  - Provide students with sets of 5-6 digit number cards. Guide students to sort their set by given criteria (ie: numbers with values of greater than 5,000 in the thousands place, etc.)

- Enrich
  - Have students create mystery number clues for 3 different numbers. Clues should be recorded on the *Mystery Math* recording sheet. In pairs, have students challenge each other to determine their mystery number by following their clues.

Evaluation

- Play place value bingo game and use observation to informally assess student mastery of the unit objectives.

Summative Assessment:

The summative assessment for this unit is located with the resources. An answer key is provided.

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PRE-ASSESSMENT

How many different ways can you represent 57,643?
How many different ways can you represent 57,643?

Teaching Idea: *I have, Who has*

Purpose: To encourage students to focus and make connections
To review math facts and concepts
To review vocabulary or concept related to a given topic or unit of study in science or social studies

Procedure: Make a set of cards containing vocabulary and definitions from a given unit of study or math facts and solutions. Place a **word** on the card, **the I have.** Then place **the definition or solution another word** on the same card, **the who has.**

Pass out one card to each member of the class. (if you have more cards than students, some students may have more than one card). Begin with one student reading his I have and Who has. This will continue until all the words and definitions have been matched. The last definition will match the first student's I have.

Ideas for using:

Works well for :Science and Social Studies units.
vocabulary from a piece of literature
with math concepts or simple mental math problems

Have a teacher "cheat sheet" with the sequence of items so that you can keep check on the progress of the activity and note is a mistake is made.

Some teachers use this exercise a number of times and keep the time for each round. The goal of the group is to improve on the time needed to complete the exercise.

I have 20 **Who has 3 hundreds, 2 tens, 5 ones?**	**I have 325** **Who has 1 hundred, 5 tens, 4 ones?**
I have 154 **Who has 9 hundreds, 0 tens, 3 ones?**	**I have 903** **Who has 6 ones?**
I have 6 **Who has 5 hundreds, 2 tens, 9 ones?**	**I have 529** **Who has 2 hundreds, 1 ten, 1 one?**
I have 211 **Who has 3 tens, 7 ones?**	**I have 37** **Who has 7 hundreds, 2 tens, 5 ones?**
I have 725 **Who has 1 ten, 6 ones?**	**I have 16** **Who has 6 hundreds, 0 tens, 8 ones?**

I have 608 **Who has 9 ones?**	**I have 9** **Who has 1 hundred, 2 tens, 6 ones?**
I have 126 **Who has 4 hundreds, 1 ten, 9 ones?**	**I have 419** **Who has 1 hundred, 0 tens, 0 ones?**
I have 100 **Who has 3 hundreds, 3 tens, 3 ones?**	**I have 333** **Who has 6 tens, 7 ones?**
I have 67 **Who has 6 hundreds, 8 tens, 0 ones?**	**I have 680** **Who has 3 hundreds, 5 tens, 2 ones?**
I have 352 **Who has 9 tens, 1 one?**	**I have 91** **Who has 2 tens, 0 ones?**

PLACE VALUE PICTORAL CHART

THOUSANDS PERIOD				**ONES PERIOD**		
HUNDREDS	TENS	ONES	,	HUNDREDS	TENS	ONES

Modeling Expanded Form

Draw the Base 10 models and write the expanded form for each number.

35,268

Expanded Form: _____

162,379

Expanded Form: _____

195,821

Expanded Form: _____

335,351

Expanded Form: _____

Modeling Expanded Form – Answer Key

Draw the Base 10 models and write the expanded form for each number.

35,268 Expanded Form: 30,000 + 5,000 + 200 + 60 + 8
162,379 Expanded Form: 100,000 + 60,000 + 2,000 + 300 + 70 + 9
195,821 Expanded Form: 100,000 + 90,000 + 5,000 + 800 + 20 + 1
335,351 Expanded Form: 300,000 + 30,000 + 5,000 + 300 + 50 + 1

TEXAS HOLD-IT!!! HIGHEST WINS

The objective of the game is to build the largest 5 or 6-digit number and win all the cards (differentiation could be to build the smallest 3 to 6-digit number).

To play the game, get a regular deck of cards. From the deck, remove all the Jokers, Tens, Aces, Jacks, and Kings. Leave the Queens in the deck. They will count as zeros (0). You should now have 36 cards.

Have the students sit next to each other (not across like in regular war) and pick a card from the deck. The player with the highest card deals.

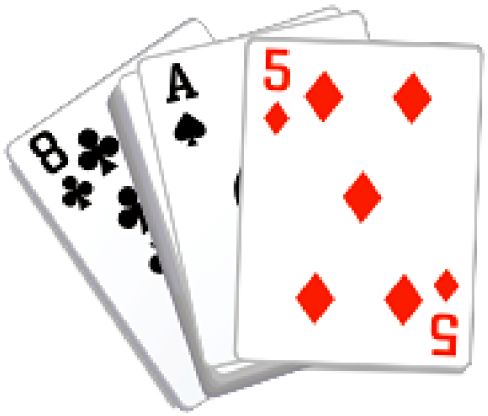
To start, shuffle the cards and deal them all out, one at a time and face down. Each player should have the same number of cards. If they don't, check to make sure all the Jokers, Tens, Aces, Jacks, and Kings have been removed from the deck. The players should stack their cards in a pile face down. Do not look at them.

The player on the dealer's left goes first. Flip over the top card on your deck and decide which place in the 6-digit number, you are going to put the card. Remember that the objective is to build the largest number. Once the card is placed, you cannot change its position.

Continue around to the left with each player placing a card in one of their 6 places in their number.

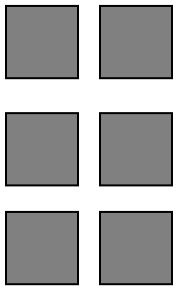
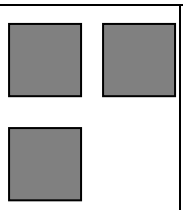
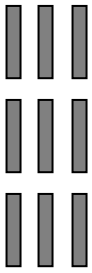
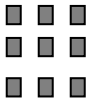
After all players have made a 6-digit number, the player with the largest number wins the round. The winner collects all the cards that were played from all the players. The cards that are collected, should be shuffled and added to the winner's deck face down.

The player who collects all the cards is the winner. In a 3 or 4 player game, players who run out of cards must sit and watch the remainder of the game.



Building Expanded Form

Look at the models below. What number is being represented by the models? Write the number in standard and expanded form.

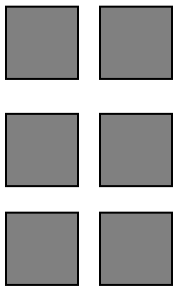
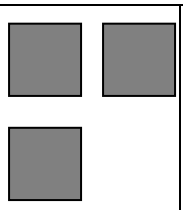
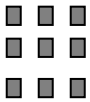
Thousands Period			Ones Period		
					

Standard Form: _____

Expanded Form: _____

Building Expanded Form

Look at the models below. What number is being represented by the models? Write the number in standard and expanded form.

Thousands Period			Ones Period		
					

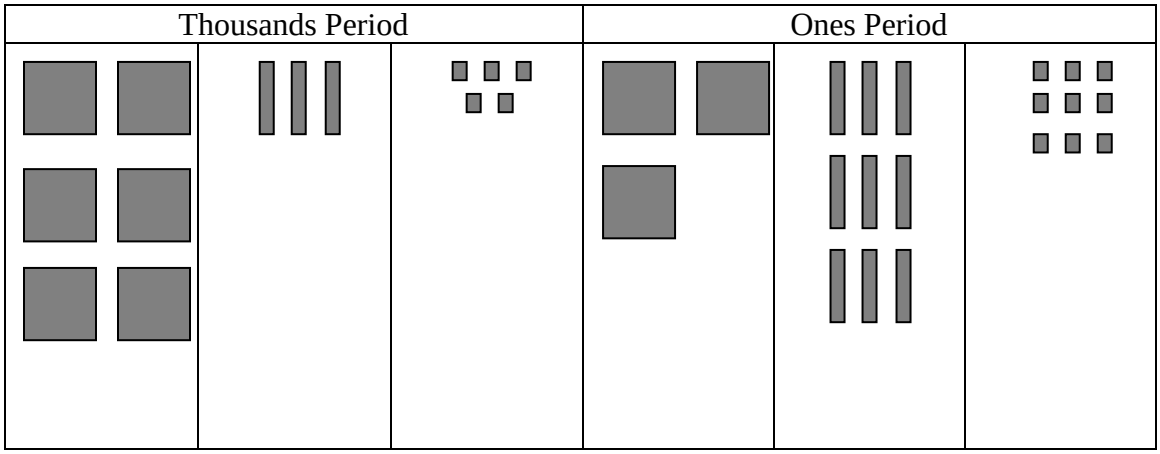
Standard Form: _____

Expanded Form: _____

Exit Ticket Answer Keys

Building Expanded Form

Look at the models below. What number is being represented by the models? Write the number in standard and expanded form.



Standard Form: 635,399
Expanded Form: 600,000 + 30,000 + 5,000 + 300 + 90 + 9

Stretching out Expanded Form

Write the expanded form for each number.

535,268 Expanded Form: _____
956,591 Expanded Form: _____
343,822 Expanded Form: _____

Write the standard form for each number.

600,000 + 30,000 + 8,000 + 500 + 80 + 7 Standard Form: _____
40,000 + 7,000 + 600 + 10 + 2 Standard Form: _____
900,000 + 50,000 + 9,000 + 900 + 50 + 9 Standard Form: _____

Name: _____ Date: _____

Stretching Out Expanded Form – Answer Key

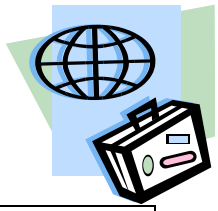
Write the expanded form for each number.

535,268 Expanded Form: 500,000 + 30,000 + 5,000 + 200 + 60 + 8
956,591 Expanded Form: 900,000 + 50,000 + 6,000 + 500 + 90 + 1
343,822 Expanded Form: 300,000 + 40,000 + 3,000 + 800 + 20 + 2

Write the standard form for each number.

600,000 + 30,000 + 8,000 + 500 + 80 + 7 Standard Form: 638,587
40,000 + 7,000 + 600 + 10 + 2 Standard Form: 47,912
900,000 + 50,000 + 9,000 + 900 + 50 + 9 Standard Form: 959,959

Expanding Your Horizons with Math



Henry took a trip. He traveled 10,000 miles on day 1. He traveled 500 miles on day 2 and 6 miles on day 3. How many miles did Henry travel?
Janine has 5 $10,000 bills, 2 $100 dollar bills and 9 $1 bills. How much money does Janine have?
What is the value of the eight in the number 678,145?
Lauren was competing in a mountain biking race. The course had her riding 80,000 miles in week 1. 7,000 miles in week 2. 600 miles in week 3, and 40 miles in week 4. How many miles is Lauren going to ride?
DaQuan was playing a video game. He earned 40,000 points on level 1, 8,000 points on level 2, 900 points on level 3 and 6 points on level 5. How many points did DaQuan earn?

Name: _____ Date: _____

Expanding Your Horizons with Math – Answer Key

Henry took a trip. He traveled 10,000 miles on day 1. He traveled 500 miles on day 2 and 6 miles on day 3. How many miles did Henry travel? 10,000 + 500 + 6 = 10,506
Janine has 5 $10,000 bills, 2 $100 dollar bills and 9 $1 bills. How much money does Janine have? 50,000 + 200 + 9 = 50,209
What is the value of the eight in the number 678,145? 8,000
Lauren was competing in a mountain biking race. The course had her riding 80,000 miles in week 1. 7,000 miles in week 2. 600 miles in week 3, and 40 miles in week 4. How many miles is Lauren going to ride? 80,000 + 7,000 + 600 + 40 = 87,640
DaQuan was playing a video game. He earned 40,000 points on level 1, 8,000 points on level 2, 900 points on level 3 and 6 points on level 5. How many points did DaQuan earn? 40,000 + 8,000 + 900 + 6 = 48,906

Don’t Forget the Period!

Write the number below in expanded form. You may use the chart to help you if needed.

538,264

Thousands Period			Ones Period		

Expanded Form: _____

Don’t Forget the Period!

Write the number below in expanded form. You may use the chart to help you if needed.

538,264

Thousands Period			Ones Period		

Expanded Form: _____

Don’t Forget the Period!

Write the number below in expanded form. You may use the chart to help you if needed.

538,264

Thousands Period			Ones Period		

Expanded Form: _____

Exit Ticket Answer Keys

Don’t Forget the Period! - Answer Key

Write the number below in expanded form. You may use the chart to help you if needed.

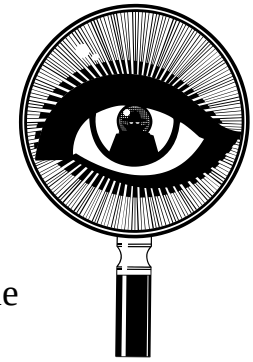
538,264

Thousands Period			Ones Period		

Expanded Form: 500,000 + 30,000 + 8,000 + 200 + 60 + 4

Mystery Number

Use the clues below to find the mystery number.
Cut out the number tiles 0-9 at the bottom of the paper.
Use the tiles to construct your number.



Clues

- Greater than 10,000
- The number in the tens place is double the number in the thousands place
- The value of one of the digits is 20,000
- Even Number
- The sum of the digits is 20

0	1	2	3	4
5	6	7	8	9

Mystery Number – Answer Key

Use the clues below to find the mystery number.
Cut out the number tiles 0-9 at the bottom of the paper.
Use the tiles to construct your number.

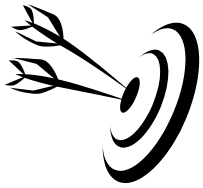
Clues

- Greater than 10,000
- The number in the tens place is double the number in the thousands place
- The value of one of the digits is 20,000
- Even Number
- The sum of the digits is 20

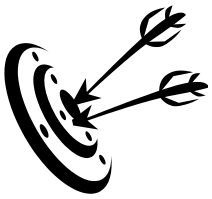
2	3	1	6	8

0	1	2	3	4

5	6	7	8	9



Expanded Form Hunt



Use your knowledge of place value to fill in the blanks below. Use the space below the questions to show your work.

1. Five hundred twenty-three thousand, four hundred has a _____ in the ten thousands place.

2. The number that is 5 more than 999,999 has ____ zeros.

3. In the number 247,164, there is a 4 in the _____ place and in the ____ place.

4. The number _____is forty thousand more than 343,014.

5. You need _____ digits to make a number that is 1 less than 100,000.

6. The value of the 2 in 208,311 is _____ .

7. The number four hundred one thousand, four has _____ digits.

8. The digits in sixty-five thousand, two hundred four have a sum of _____.

Name: _____ Date: _____

Expanded Form Hunt – Answer Key

Use your knowledge of place value to fill in the blanks below. Use the space below the questions to show your work.

1. Five hundred twenty-three thousand, four hundred has a 2 in the ten thousands place.

2. The number that is 5 more than 999,999 has 5 zeros.

3. In the number 247,164, there is a 4 in the ten thousands place and in the ones place.

4. The number 383,014 is forty thousand more than 343,014.

5. You need 5 digits to make a number that is 1 less than 100,000.

6. The value of the 2 in 208,311 is 200,000 .

7. The number four hundred one thousand, four has 6 digits.

8. The digits in sixty-five thousand, two hundred four have a sum of 17.

Name: _____ Date: _____

Mystery Math

Come up with a Mystery 5 or 6 digit number. Create clues and write them in the boxes below. Challenge your partner to discover your mystery number!

_____ _____ _____, _____ _____
_____

Clues:

1. _____
2. _____
3. _____
4. _____

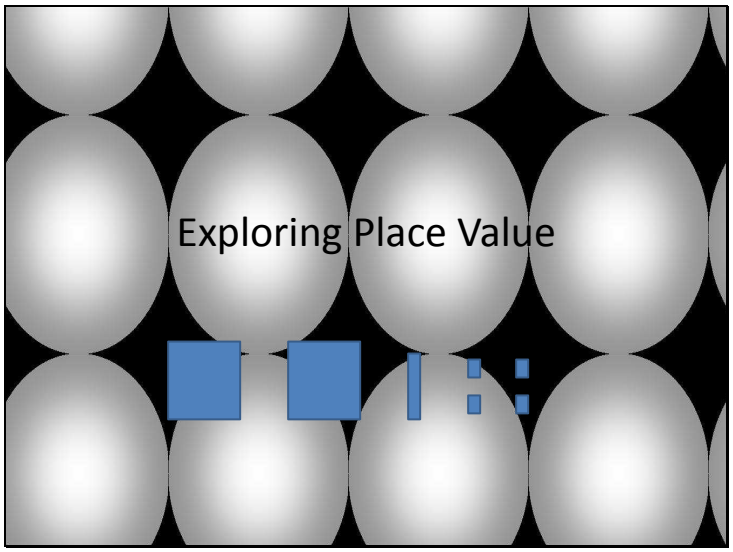
_____ _____ _____, _____ _____
_____

Clues:

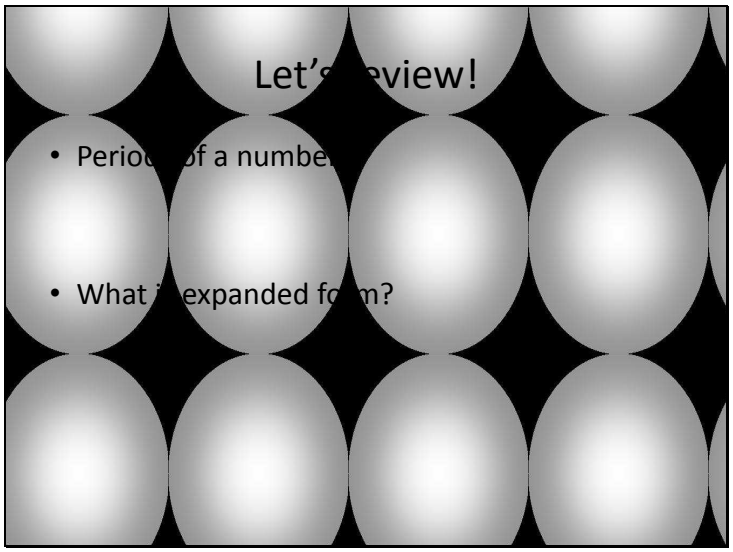
1. _____
2. _____
3. _____
4. _____

Name: _____ Date: _____

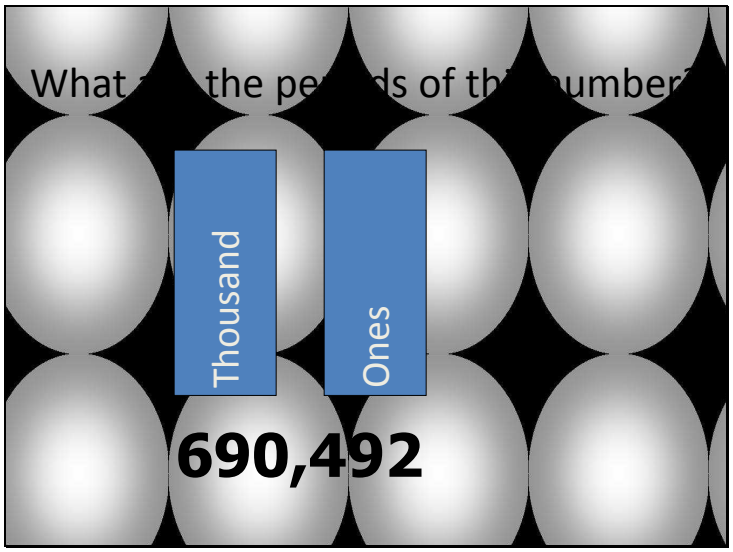
Slide 1



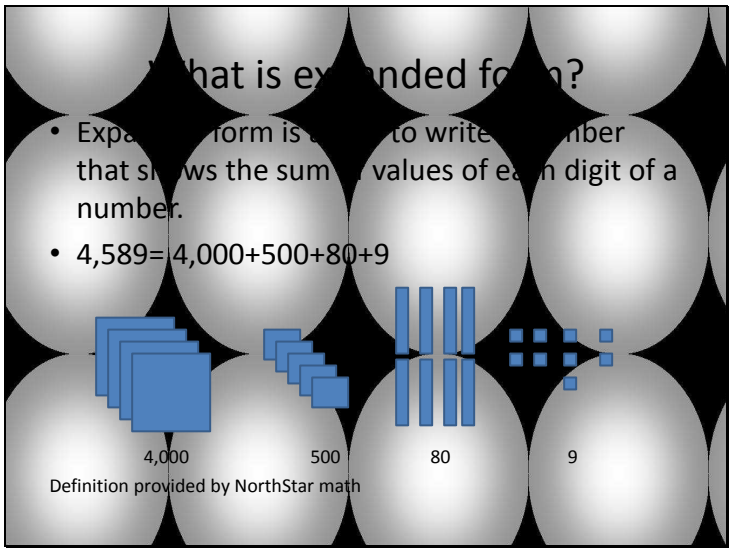
Slide 2



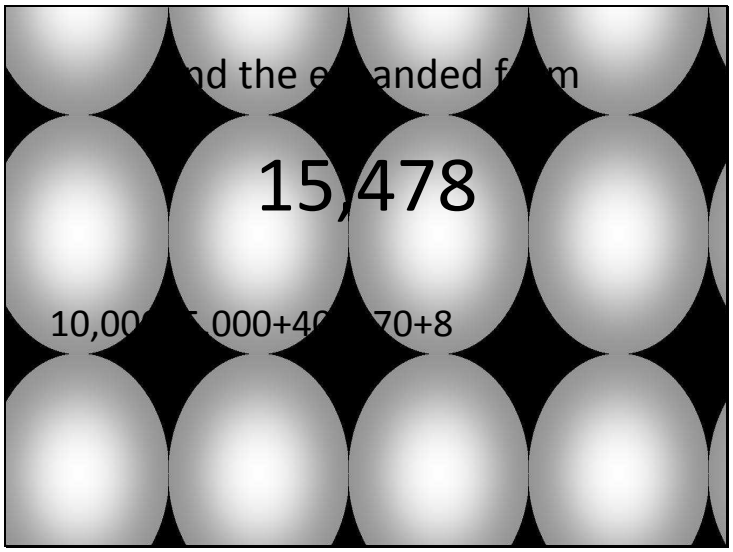
Slide 3



Slide 4

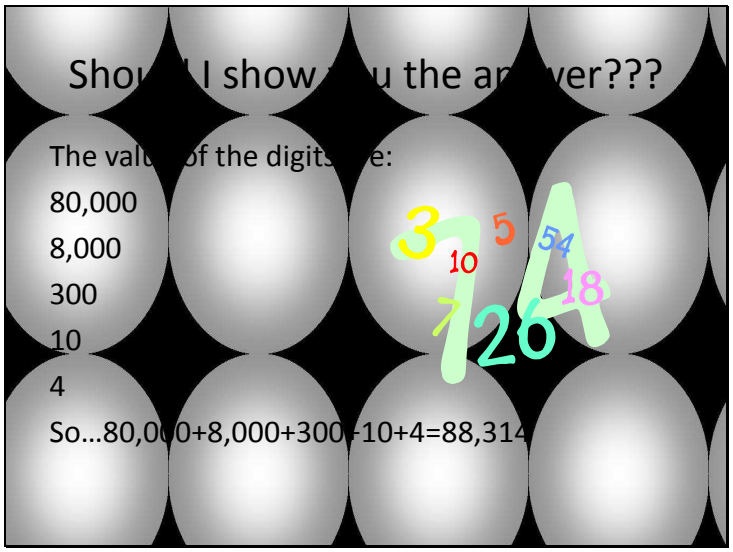

What is expanded form?
• Expanded form is a way to write a number that shows the sum of values of each digit of a number.
• 4,589= 4,000+500+80+9
4,000
500
80
9
Definition provided by NorthStar math

Slide 5

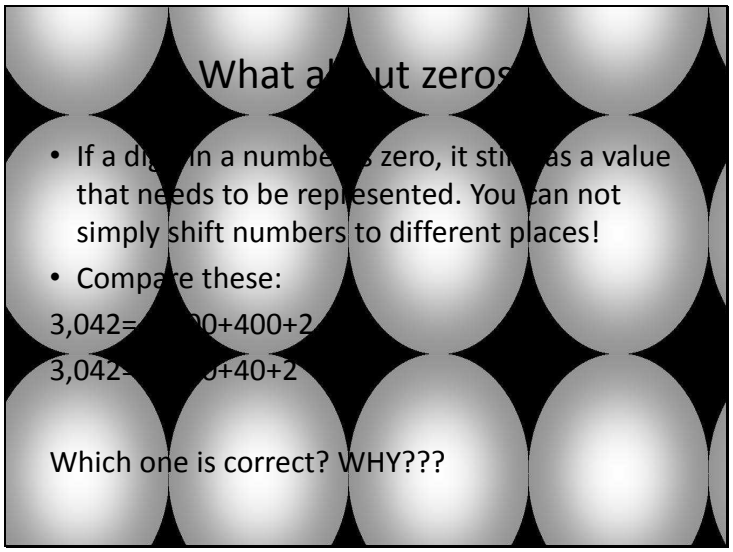


Slide 6

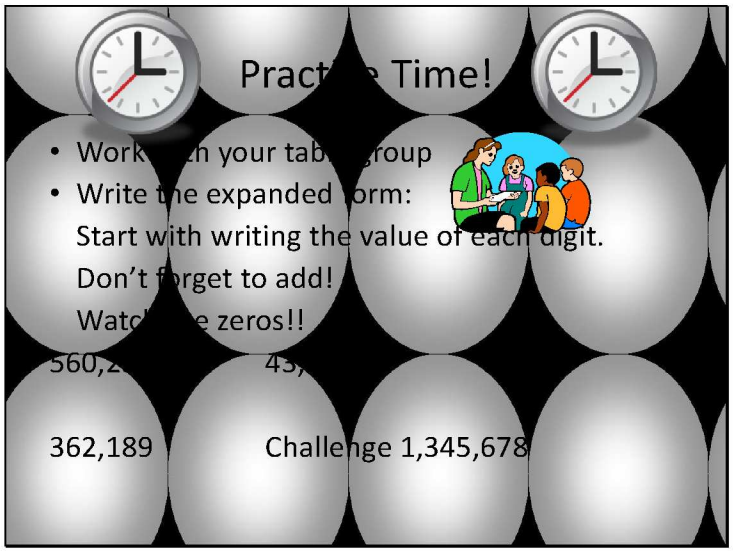
Slide 7


Shou I show u the an ver???
The valu of the digits e:
80,000
8,000
300
10
4
So…80,0 0+8,000+300+10+4=88,314
3
5
54
10
18
7
26

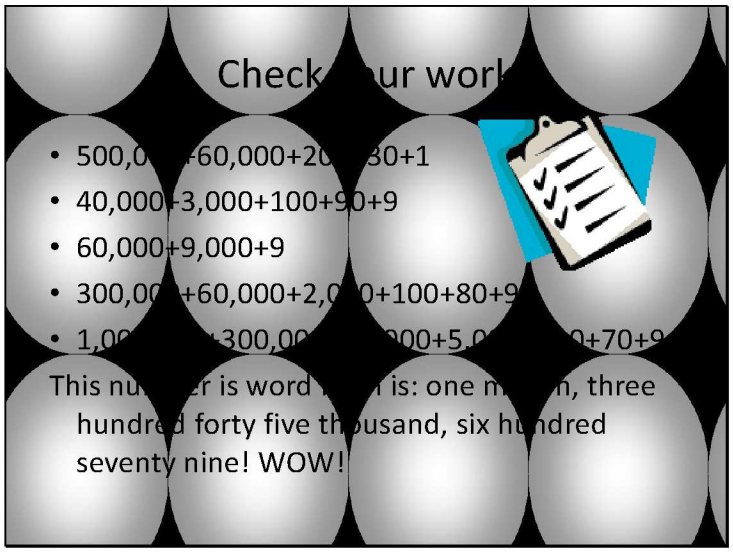
Slide 8


What about zeros
• If a digit in a number is zero, it still has a value that needs to be represented. You can not simply shift numbers to different places!
• Compare these:
3,042=
+400+2
3,042=
+40+2
Which one is correct? WHY???

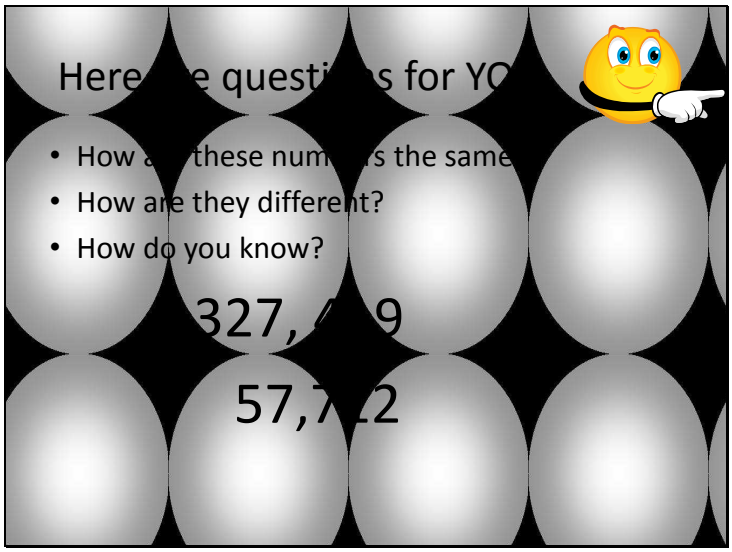
Slide 9


Practice Time!
• Work with your table group
• Write the expanded form:
Start with writing the value of each digit.
Don't forget to add!
Watch the zeros!!
362,189
Challenge 1,345,678

Slide 10


Check ur work
• 500,0 60,000+20 30+1
• 40,000+3,000+100+90+9
• 60,000+9,000+9
• 300,00 60,000+2,0 0+100+80+9
• 1,00 300,00 00+5,0 0+70+9
This nu r is word h is: one m n, three hundred forty five thousand, six hundred seventy nine! WOW!

Slide 11


Here e questi s for YO
• How a these num s the same
• How are they different?
• How do you know?
327,
9
57,7 2

5-6 digit number cards

24,865	61,780
458,239	13,488
789,456	54,454
15,555	243,589
67,321	127,603

97,724	45,202
560,781	791,465
88,926	146,902
79,900	50,431
66,091	640,799

Place Value Bingo Directions

1. Give each student a blank place value bingo chart.
2. Show the students the sheet titled “Place Value Bingo Numbers”
3. Have the students put the numbers into their bingo sheets in any order. They should put 1 number in each box. All boxes should be filled.
4. Hand each student objects to serve as markers. This could include base 10 units, red/yellow flip coins, play coins, etc).

To Play:

1. Explain to the students that you are going to call and show a card that has expanded form or a clue to identify the number.
2. Cut the clues apart from “Place Value Bingo Clues.”
3. When they have identified the number, they should put a marker on that space.
4. The first player to have 5 in a row either diagonally, horizontal, or vertical wins.

Place Value Bingo Numbers

25,380	456,825	95,275	200,685
795,301	759,126	871,482	65,487
317,148	19,473	787,243	687,433
796,546	687,645	546,736	56,767
787,511	164,673	658,677	705,431
465,066	71,246	656,730	640,543

Place Value Bingo Clues

20,000 + 5,000 + 300 + 80
700,000 + 90,000 + 5,000 + 300 + 1
300,000 + 10,000 + 7,000 + 100 + 40 + 8
700,000 + 90,000 + 6,000 + 500 + 40 + 6
700,000 + 80,000 + 7,000 + 500 + 10 + 1
400,000 + 60,000 + 5,000 + 60 + 6
400,000 + 50,000 + 6,000 + 800 + 20 + 5
700,000 + 50,000 + 9,000 + 100 + 20 + 6
10,000 + 9,000 + 400 + 70 + 3
600,000 + 80,000 + 7,000 + 600 + 40 + 5
100,000 + 60,000 + 4,000 + 600 + 70 + 3
70,000 + 1,000 + 200 + 40 + 6
Has a 5 in the thousands and tens places
800,000 + ____ + ____ + ____ + 80 + ___
Has a 7 in the hundred thousands and thousands place
_____ + 40,000 +____ + 700 + ___ + ___
Has a 6 in the hundred thousands and hundreds place
_____ + _____ + 6,000 + 700 + ____ +___
Has a 2 in the hundred thousands place
60,000 + ____ + ____ + 80 + ___
Has a 3 in the tens and ones place
50,000 + _____ + 700 + ____ + _____
Has a 0 in the ten thousands place and a 1 in the ones place
600,000 + _____ + _____ + 40 + 3

Place Value Bingo

Expanded Form Assessment

Read each selected response question and fill in the correct letter.

1.Which of the following choices is the value of the underlined digit in 6<u>2</u>3,849?
Ⓐ 200
Ⓑ 2,000
Ⓒ 20,000
Ⓓ 200,000

2.Which of the following choices is the correct standard form of 900,000 + 3,000 + 600 + 30?
Ⓐ 903,603
Ⓑ 903,063
Ⓒ 90,630
Ⓓ 903,630

3.Which of the following choices is the correct expanded form of 75,296?
Ⓐ 70,000 + 5,000 + 200 + 9 + 6
Ⓑ 7,000 + 5,000 + 200 + 90 + 6
Ⓒ 70,000 + 5,000 + 200 + 90 + 6
Ⓓ 7 + 5 + 2 + 9 + 6

Name: _____ Date: _____

Bill won the lottery. He is going to the bank to deposit his winnings. Bill has three $100,000, two $10,000, six $1,000 bills, 5 $100 bills, and 7 $1 bills.

Step A
How much money is Bill depositing? Write your answer in standard form.

Step B
Explain how you determined your answer.
Use what you know about expanded form and place value in your explanation.
Use words, numbers, and/or symbols in your explanation.

Expanded Form Assessment – Answer Key

Read each selected response question and fill in the correct letter.

1.Which of the following choices is the value of the underlined digit in 623,849?
Ⓐ 200
Ⓑ 2,000
Ⓒ 20,000 X
Ⓓ 200,000

2.Which of the following choices is the correct standard form of 900,000 + 3,000 + 600 + 30?
Ⓐ 903,603
Ⓑ 903,063
Ⓒ 90,630
Ⓓ 903,630 X

3.Which of the following choices is the correct expanded form of 75,296?
Ⓐ 70,000 + 5,000 + 200 + 9 + 6
Ⓑ 70,000 + 5,000 + 200 + 90 + 6 X
Ⓒ 7,000 + 5,000 + 200 + 90 + 6
Ⓓ 7 + 5 + 2 + 9 + 6

Name: _____ Date: _____

Bill won the lottery. He is going to the bank to deposit his winnings. Bill has three $100,000, two $10,000, six $1,000 bills, 5 $100 bills, and 7 $1 bills.

Step A

How much money is Bill depositing? Write your answer in standard form.

$326,507

Step B

Explain how you determined your answer.

Use what you know about expanded form and place value in your explanation.

Use words, numbers, and/or symbols in your explanation.

Sample Answer:

I used place value to construct my answer. For the $100,000 bills, I put the 3 in the hundred thousand place. For the $10,000 bills, I put the 2 in the ten thousands place. For the $1,000 bills, I put the 6 in the thousands spot. For the $100 bills, I put the 5 in the hundreds place. There are no $10 bills, so I put a 0 in the tens place. For the $1 bills, I put the 7 in the ones place.

Answers should include:

- an explanation of place value and using the value of bills to position digits
- understanding that there are no tens, so a 0 should be in the tens place.